

University of Illinois Department of
Agricultural Engineering
BEES Lab

Project Number: 00071bd

Test Date: April 26, 2000

Fan

Make: Big Dutchman

Model #: 60-50-5203

Manufacturer: Canarm

Blade Size: 50.1 dia.

Orifice Dia.: 52" dia.

Blade

Number: 3

Shape: propeller

Material: galvanized steel

Pitch: -

Clearance: 0.5"

Shutter

Material: plastic w/ galv. Frame

of Doors: 14 per column

of Columns: 2

Door Length: 27.5"

Location: intake

Other Attachments:

Discharge cone 22.4" deep, 54" i.d., 60" o.d.

Motor

Make: GE

Model #: 5KCR48WN0513X

H.P.: 1.0

Amps: 9.6/4.8

Volts: 115/230

RPM: 1725

S.F.: 1.40

Drive

Drive Pulley Dia. 3.3" o.d.

Axle Pulley Dia.: 8.9" o.d.

Housing

Material: fiberglass

Intake Area: 56.3" x 56"

Discharge Area: 54" dia.

Depth: 43.3" x 31"

Guards

Description: wire

Spacing: 2" concentric

Location: exhaust

Test Results

BIG DUTCHMAN 60-50-5203

Test: 00071bd

Fan description:

50" belt drive, 1 hp GE 5KCR48WN0513X
motor, fiberglass housing, plastic shutter, guard
and discharge cone

Static Pressure

in. water

0.00

0.05

0.10

0.15

0.20

0.25

0.30

Speed

rpm

619

617

612

609

606

602

600

Airflow

cfm

27,900

26,400

24,800

22,900

20,700

17,900

14,800

Efficiency

cfm/Watt

25.2

22.1

19.5

17.0

14.6

12.1

9.7